CLAIMS:

1   1. A signaling method for use in setting up internet protocol network calls,
2   wherein said internet protocol network comprises an application server for providing call
3   feature processing, said method comprising the steps of:
4   receiving at an application server call information whereby said application server
5   is inserted into a signaling path for said call;
6   determining, at said application server, whether said application server is
7   required in the signaling path to complete call setup for said call; and
8   if said application server is not required in the signaling path to complete said call
9   setup, said application server removing itself from the signaling path.

1   2. The method of claim 1 wherein said step of said application server removing
2   itself from the call signaling path further comprises the step of:
3   transmitting an SIP REDIRECT message to a call control element.

1   3. The method of claim 1 wherein said step of said application server removing
2   itself from the call signaling path further comprises the step of:
3   transmitting an SIP REFER message to a call control element.

1   4. The method of claim 1 wherein, if said determining step determines that said
2   application server is required in said signaling path to complete call setup, said method
3   further comprising the steps of:
4   said application server providing feature processing for said call; and
5   said application server thereafter determining that it is not required in said signal
6   path to complete call setup and removing itself from the call signaling path.

1   5. The method of claim 4 wherein:

2   said step of said application server providing said feature processing further

3   comprises the step of sending an SIP INVITE message to a call control element in order

4   to invoke service of another network server; and

5   said step of said application server removing itself from the call signaling path

6   further comprises the steps of sending to said call control element a) an SIP redirect

7   message or SIP REFER message, and b) an SIP cancel to cancel said INVITE

8   message.

1   6. The method of claim 5 wherein said another network server is a media server

2   and wherein said invoked service is collection of caller input.

1   7. The method of claim 1 wherein said step of removing occurs prior to

2   completion of call setup.

1   8. A signaling method for use in setting up internet protocol network calls,

2   wherein said internet protocol network comprises an application server for providing call

3   feature processing, said method comprising the steps of:

4   receiving at an application server a request for call feature processing for a call

5   whereby said request inserts said application server in a signaling path for call setup;

6   said application server providing said call feature processing; and

7   said application server removing itself from said signaling path upon a

8   determination that it is no longer required in said signaling path for call setup.

1   9. The method of claim 8 wherein said step of removing occurs prior to

2   completion of call setup.

1   10. The method of claim 8 wherein said step of providing said call feature

2   processing further comprises the step of:

3   determining a primary and alternate routing number for said call.

1   11. The method of claim 10 wherein said step of removing occurs immediately

2   subsequent to said determining step.

1   12. The method of claim 8 wherein said step of providing said call feature

2   processing further comprises the steps of:

3   determining a primary routing number for said call;

4   sending said primary routing number to a network element;

5   receiving an indication for an alternate routing number; and

6   determining said alternate routing number.

1   13. The method of claim 12 wherein said step of removing occurs immediately

2   subsequent to said step of determining said alternate routing number.

1   14. A network node for providing call feature processing during setup of internet

2   protocol network calls, said network node comprising of:

3   means for receiving call information;

4   means for determining whether said network node is required in a signaling path

5   to complete call setup for said call; and

6   means for said network node removing itself from the signaling path if is not

7   required in the signaling path to complete said call setup.

1   15. The network node of claim 14 wherein said means for removing further

2   comprises:

3   means for transmitting an SIP redirect message to a call control element.

1   16. The network node of claim 14 wherein means for removing further

2   comprises:

3   means for transmitting an SIP REFER message to a call control element.